

**\*78751\***

January-13-12 10:44:32 AM

Item ID:	D3183-041	Accept	*N900040100*	Setup	Start	*NS1*
Revision ID:						
Item Name:	Bracket Assembly				Stop	*NS2*
Start Date:	13/01/2012	Start Qty: 2.00	*2*	Cust Item ID:		
Required Date:	27/01/2012	Req'd Qty: 2.00	*2*	Customer:		
Reference:						

Approvals: Process Plan: M.C.J. Date: 12/01/13 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 78751

**\*78751\***

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January-13-12 10:44:32 AM

Item ID: D3183-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Bracket Assembly  
 Start Date: 13/01/2012 Start Qty: 2.00 **\*2\*** Cust Item ID:  
 Required Date: 27/01/2012 Req'd Qty: 2.00 **\*2\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00	12-03-05			②			
140 <b>*140*</b> Small Fab Small Fab	Small Fab  Memo Assemble D3183-041 as per Dwg D3183.	0.00 0.00							
150 <b>*150*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00				②			

12/03/06 ②

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

**Work Order ID 78751****\*78751\***

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January-13-12 10:44:32 AM

Item ID: D3183-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Item Name: Bracket Assembly

Stop **\*NS2\***

Start Date: 13/01/2012 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 27/01/2012 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>235B</u>	0.00							
<b>*160*</b>									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

12/4/12 (2)

12/3/12 DJ

MF  
12-03-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

January-13-12 10:44:36 AM

Page 1

Work Order ID: 78751

**\*78751\***

Parent Item: D3183-041

**\*D3183-041\***

Parent Item Name: Bracket Assembly

Start Date: 13/01/2012

Required Date: 27/01/2012

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:Pick:A04.02.18New issueKJ/DS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3183-045 <b>*D3183-045*</b> Bearing Assembly		Manufactured	No			100	Each	4.0000	2	4			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST236				4					
					74850			4					
D3121-21 <b>*D3121-21*</b> Bolt		Manufactured	No			140	Each	65.0000	2	4			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST235				65					
				66969				1					
				74546				4					
				76176				60					
M174B2.000X01.500 <b>*M174B2 000X01 500*</b> 17-4 SS Bar 2.00 x 1.500		Purchased	No			140	f	9.0000	0.4583	0.964842			
									**				
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MAT050				9					
					113189			9					

EP 12/03/06  
B 79697 (49)

EP 12/03/06  
B 79732 (49)

EP 12/02/17

1.500X2.500 M113568 X1.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	78757
<b>Description:</b> Bracket		<b>Part Number:</b>	D3183-1
<b>Inspection Dwg:</b> D3183 <b>Rev:</b> C1		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article**
                 
 ☐ **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
<del>0.400</del>	<del>+/-0.010</del>					
0.182	+/-0.010	.182	—		Ucan M406	
0.070	+/-0.010	.070	—		"	
0.100	+/-0.010	.097	—		"	
R0.063	+/-0.010	R.063	—		"	
R0.189	+/-0.010	R.190	—		"	
3.881	+/-0.010	3.880	—		"	
4.17	+/-0.030	4.170	—		"	
0.830	+/-0.010	.830	—		"	
0.500	+/-0.010	.500	—		"	
0.218	+/-0.010	.213	—		"	
1.030	+/-0.010	1.030	—		"	
1.90	+/-0.030	1.900	—		"	
1.012	+/-0.010	1.012	—		"	
0.786	+/-0.010	.780	—		"	
R0.19	+/-0.010	R.190	—		"	
Ø0.392	+0.002/-0.000	Ø.3934	—		"	
0.162	+/-0.010	.165	—		"	
2.799	+/-0.010	2.800	—		"	
2.075	+/-0.010	2.075	—		"	
0.162	+/-0.010	.162	—		"	
0.032	+/-0.010	.027	—		"	
0.381	+/-0.010	.380	—		"	
0.200	+/-0.010	.200	—		"	

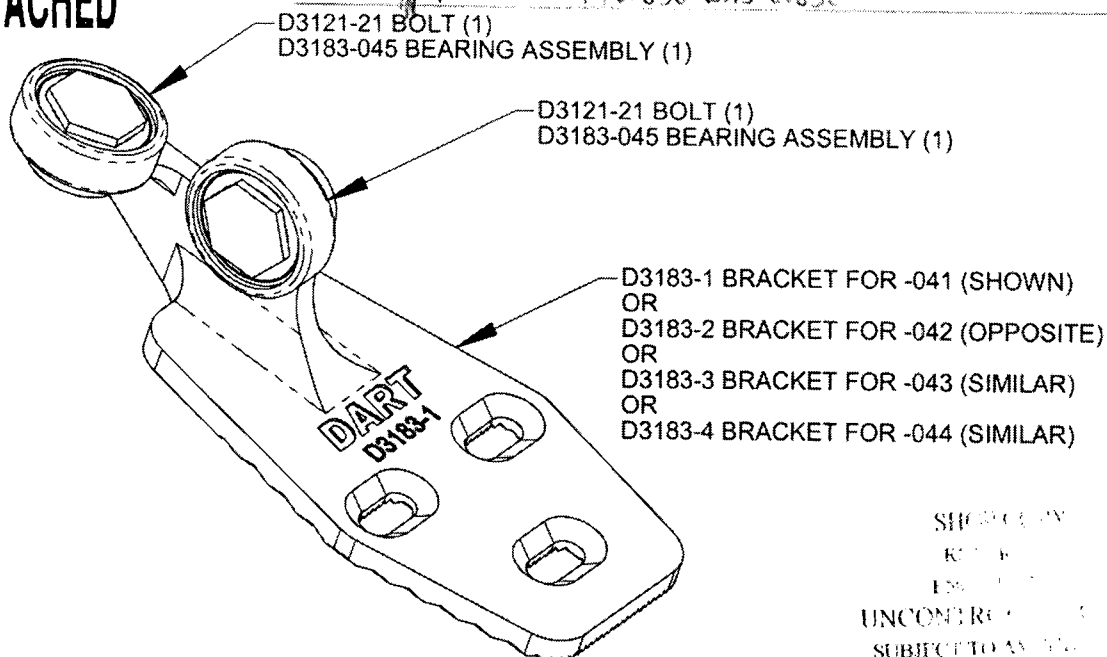
<b>Measured by:</b>	<i>[Signature]</i>	<b>Audited by:</b>	<i>[Signature]</i>	<b>Prototype Approval:</b>	N/A
<b>Date:</b>	12/03/03	<b>Date:</b>	12-03-05	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	05.02.17	New Issue (P/O D3183-041/-042)	KJ/JLM <i>[Signature]</i>	<i>[Signature]</i>



DESIGN #	DRAWN BY CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. <b>D3183</b>	REV. C SHEET 1 OF 4
DATE <b>04.02.17</b>		TITLE <b>BRACKET ASSEMBLY</b>	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	# 04.11.09	0.830 WAS 0.850	

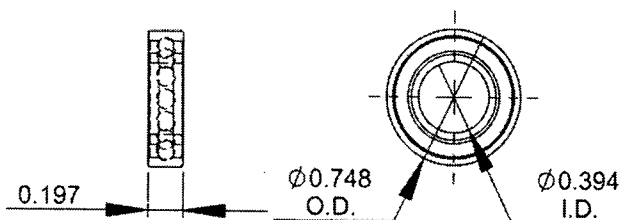
RELEASED  
04 03 01  
DEO ATTACHED



**D3183-041 BRACKET ASSEMBLY (SHOWN)**  
**D3183-042 BRACKET ASSEMBLY (OPPOSITE)**  
**D3183-043 BRACKET ASSEMBLY (SIMILAR)**  
**D3183-044 BRACKET ASSEMBLY (SIMILAR)**

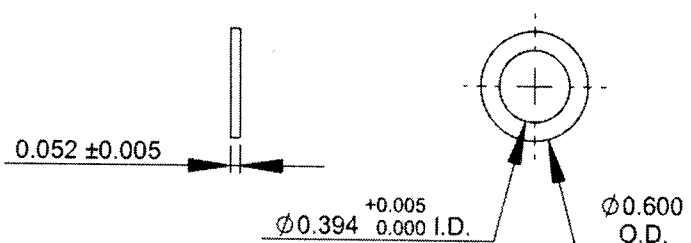
SHOWN  
R  
E  
UNCONTROLLED COPY  
SUBJECT TO APPROVAL

NO. 78751 M.C.J.  
12/01/13



**D3183-5 BEARING:**  
**SPECIFICATION CONTROL DRAWING**

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



**D3183-7 WASHER**

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

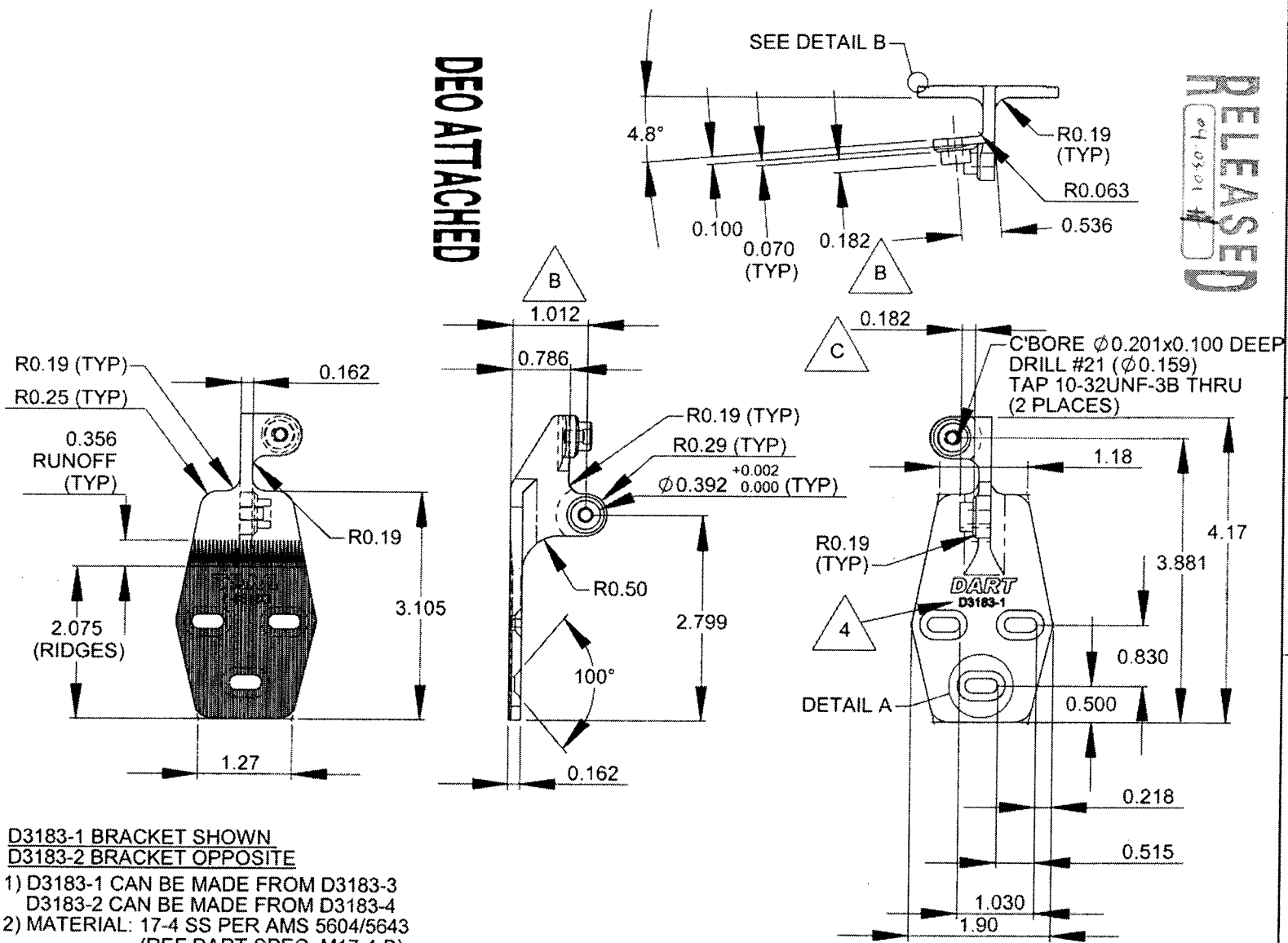
7875



DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 2 OF 4
TITLE	SCALE	
BRACKET ASSEMBLY	1:2	

RELEASED  
04.03.01

DEO ATTACHED



D3183-1 BRACKET SHOWN  
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3  
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

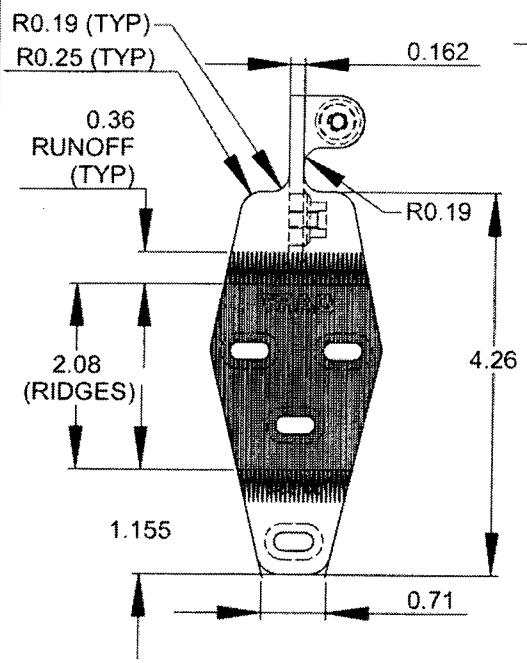
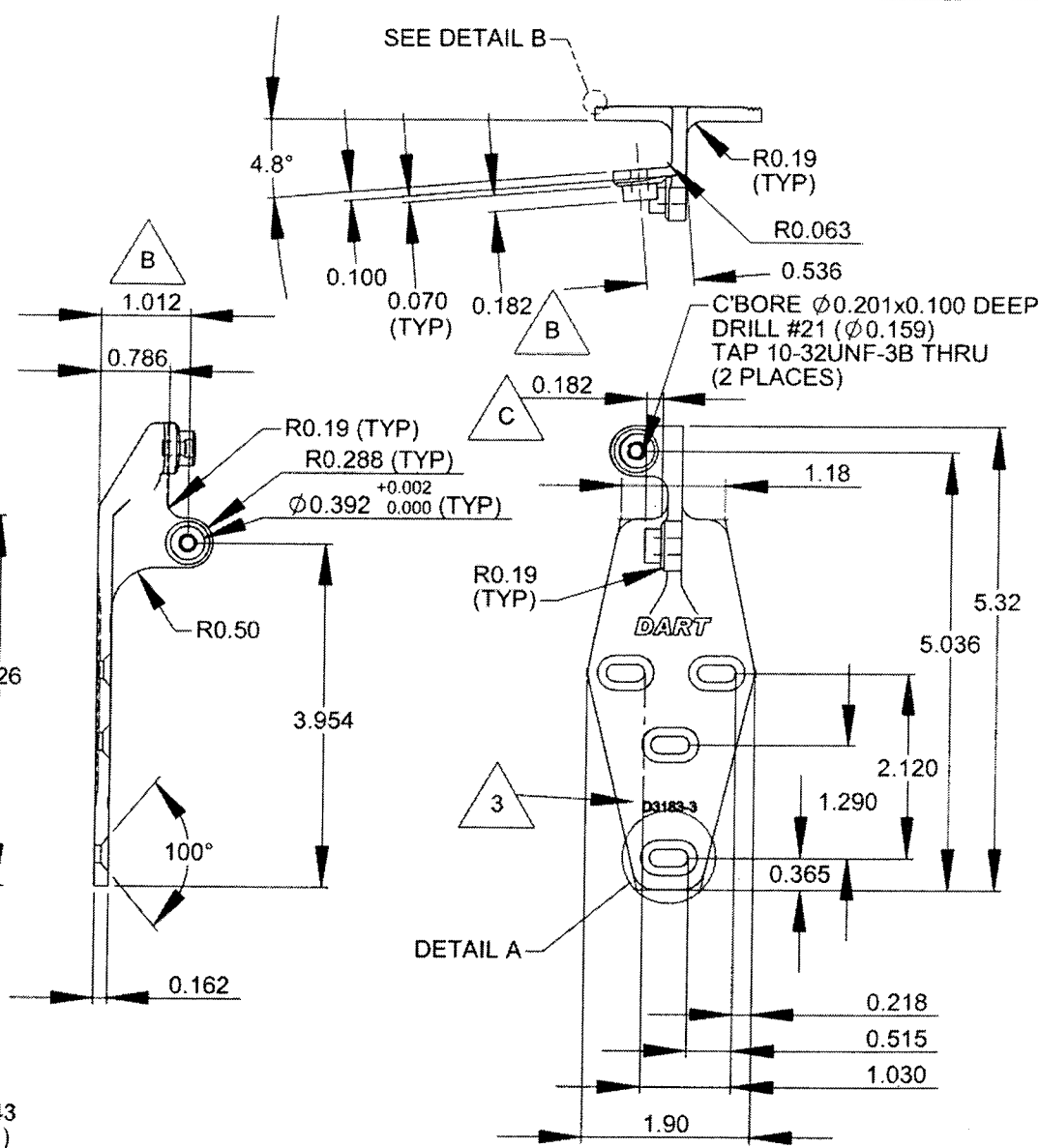
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

78751



DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE 04.02.17	DRAWING NO. D3183	REV. C
	TITLE BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN  
(REPLACES BELL P/N 412-030-304-105)  
D3183-4 BRACKET OPPOSITE  
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE STRENGTH = 150 ksi  
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

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**DEO ATTACHED**

**RELEASED**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

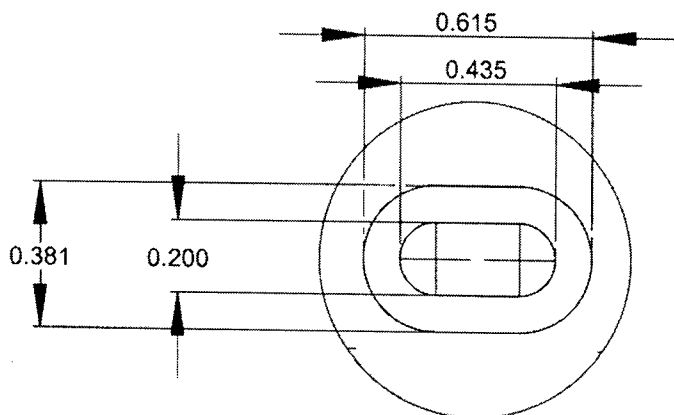
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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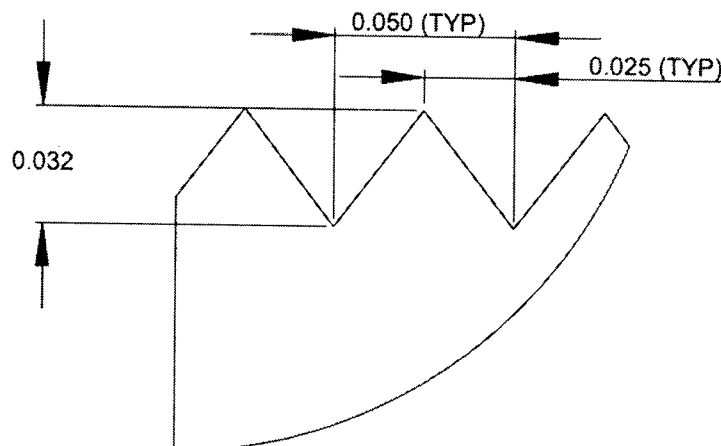
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3183</b>	REV. C
DATE <b>04.02.17</b>		TITLE <b>BRACKET ASSEMBLY</b>	SHEET 4 OF 4
			SCALE 1:1



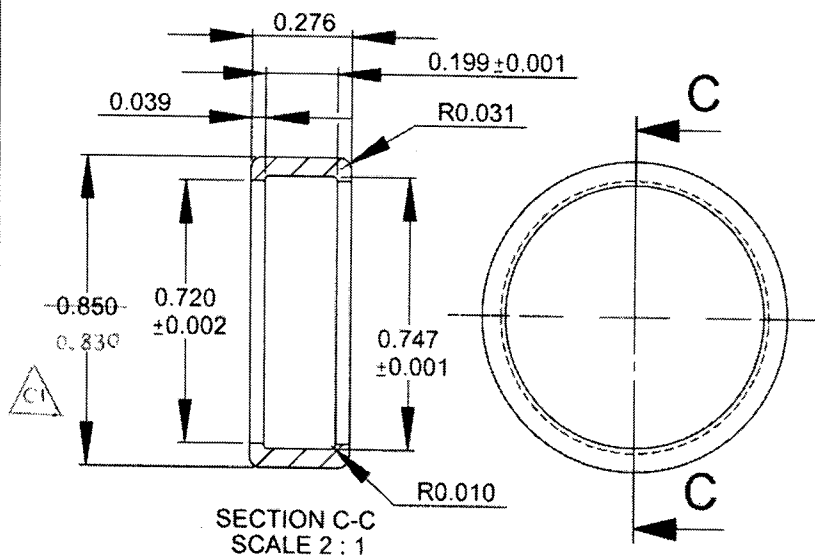
DETAIL A (2 : 1)

RELEASED  
04.03.21

DEO ATTACHED



DETAIL B (20 : 1)



**D3183-9 CAP**

- 1) MATERIAL: DELRIN ROD, Ø1.00  
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018  
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

**D3183-045 BEARING ASSEMBLY**

- 1) ASSEMBLE D3183-5 BEARING AND  
D3183-9 CAP

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*[Handwritten signature]*



W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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